U.S. Patent Application Serial No. 10/782,821
Amendment filed October 15, 2008
Reply to OA dated July 9, 2008

AMENDMENT TO THE SPECIFICATION:

Please amend the specification as follows:

Please replace the paragraph beginning on page 12 line 7 with the following rewritten paragraph:

When a ring-shaped lamp is used, the weighting factor is obtained as shown in Fig. 6, and is represented by the following equation (5).

$$\sout{F_k = A_k / (\sigma_2{}^2\pi - \sigma_1{}^2\pi)} \quad \underline{F_k{}' = A_k{}' / (\sigma_2{}^2\pi - \sigma_1{}^2\pi)} \qquad \ldots (5)$$

<u>Also, the average value of light intensity ($\bar{I}$) is calculated with the use of the following equation:</u>

$$\underline{\bar{I} = \sum_{k=1}^{N} F_k{}' S_k{}' S_k{}'^*}$$

<u>wherein, "$F_k{}'$" is a weighting factor of diffracted light (a real number), and "$S_k{}'$" is the amplitude of the diffracted light (a complex number: an asterisk (*) represents a complex conjugate number.), "k" representing the number of the diffracted light corresponds to the combination of (n,m) one to one. ("n" and "m" are the orders of diffracted light in X and Y directions, respectively.)</u>